DOCUMENT RESUME

ED 147 210 SO 010 387

AUTHOR Weiss, Joseph W.; Williamson, John B.
TITLE The Convergence Theory Reconsidered: Political and Economic Determinants of Social Welfare Effort, A Cross-National Analysis.
PUB DATE Sep 77
NOTE 25p.; Paper presented at Annual Meeting of the American Sociological Association (72nd, Chicago, Illinois, September 5-9, 1977)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Conceptual Schemes; Economic Factors; Literature Reviews; *Models; *Political Influences; Social Influences; *Social Science Research; *Social Welfare; *Socioeconomic Influences; Sociology; Welfare
IDENTIFIERS Convergence Theory

ABSTRACT

The convergence theory asserts that industrial nations are becoming increasingly alike due to their economic and technological development. Most interpretations of the convergence theory either state or imply that political factors are unimportant in shaping the common welfare state toward which all industrial nations are converging. Using data on 39 countries, the authors present evidence indicating that, contrary to expectation, egalitarian political movements (socialist parties and labor unions) have a substantial impact on a nation's social welfare effort. The effect of egalitarian political movements is, however, substantially less than that of economic development when the appropriate models are specified. The authors conclude that one way in which egalitarian political movements affect a nation's social welfare effort is through their impact on the development of a social welfare bureaucracy. On the basis of this study, the authors propose that the relevance of political factors in the convergence theory be reconsidered. (Author/DES)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED147210

NOV

use

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

The Convergence Theory Reconsidered: Political and Economic Determinants of Social Welfare Effort: A Cross-National Analysis

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Joseph Weiss
John Williamson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM"

by

Joseph W. Weiss
Boston College

and

John B. Williamson
Boston College

This paper was presented at the 72nd Annual Meeting of the American Sociological Association, Chicago, September 8,1977.

SO010387

The convergence theory postulates that all industrial nations, regardless of their historical and cultural traditions and regardless of their present political and economic structures are becoming increasingly alike. The ideas which underlie this theory can be directly traced to such nineteenth-century theorists as Maine (1964), de Tocqueville (1952) and Toennies (1963). During the first half of this century relatively little was done with the theory, but in recent years it has attracted a great deal of research interest (Kerr et al., 1964; Pryor, 1968; Weinberg, 1969; Mishra, 1973; Baum, 1974; Jackman, 1975; Wilensky, 1975; Meyer, et al., 1975). In its simplest form the convergence theory is quite general. As a result several interpretations are possible. In the present analysis we focus on two of the most common interpretations.

One interpretation of the convergence theory is that the level of economic and technological development are the dominant factors shaping modern societies. That is, the less developed nations will become increasingly like the presently developed nations as they approach these nations in level of development. Implicit in this interpretation is the assumption of a linear relationship between level of development and a variety of social structural characteristics, including the proportion of GNP which is allocated to social welfare expenditures. Also implicit is the assumption that political factors are of little or no importance

in accounting for these social structural characteristics. This first interpretation of the convergence theory will hereafter be referred to as the linear interpretation.

This interpretation is well illustrated by the work of Kerr et al. (1964). Kerr argues that industrial societies are becoming alike in their social structures through an evolutionary process resulting from the impact of economic and technological growth on the occupational structure. This growth increases the middle levels of the stratification systems creating a large relatively homogeneous middle class. Kerr has termed this process by which economic and technological factors transform and standardize industrial nations the "logic of industrialization."

In Kerr's specification of the convergence theory political and ideological movements have little or no effect on the degree of social inequality in industrial nations. Social inequality in industrial societies is reduced through the expanding division of labor. A larger proportion of the population enter higher occupational levels and, as a result, are able to obtain a larger share of the society's material wealth.

Several recent studies support the view that economic and industrial development are substantially more important than political structure in determining social equality effort. Wilensky (1975:23-49) in a cross-national study of sixty countries finds that political system and ideology have only a weak impact on the social security effort. He argues that GNP per capita, through its impact on age structure of the population, is a stronger determinant of social security expenditures than elite ideology

or political system. Similarly, Pryor (1968) finds in an analysis of seven market and seven centrally planned economies that economic development is a more powerful determinant of welfare expenditures than is economic system. Cutright (1965) shows that economic development is a stronger predictor of social insurance program coverage than is political representativeness. He concludes that the role of politically relevant secondary groups in influencing government decisions is modest. Jackman (1974) finds that the effect of political democracy on various measures of social equality is spurious when level of economic development is controlled. Lewis (1963) in a study of labor unions and relative wages in the United States finds that the impact of unionism on wage inequality among all workers is minimal.

However, there is also evidence that supports the proposition that political factors can be important determinants of social equality effort. Jackman's (1975: 120-131) analysis of sixty noncommunist countries shows that countries with strong labor union membership are more egalitarian in their social insurance program coverage. Pryor's (1968: 473-475) statistical analysis of nineteen countries demonstrates a positive and significant relationship between labor union strength and social welfare effort.

We now turn to a second interpretation of the convergence theory to be referred to as the curvilinear interpretation. This interpretation postulates that all industrial nations, regardless of their current economic and political structure, are asymptotically approaching a common

form of the welfare state. Implicit in this interpretation is the assumption of a curvilinear relationship between level of development and the various social structural characteristics associated with the welfare state.[1] That is, the effect of an increase in GNP on other aspects of society is stronger at lower levels of development and it decreases as the level of development increases. Reasoning along the lines of this second interpretation of convergence theory we would still expect the effect of political factors to be minor relative to the effect of economic development. But we would expect this trend to be more evident when we use a curvilinear (logarithmic) measure of economic development.

The curvilinear interpretation of convergence theory is illustrated by Wilensky (1975: 18-19) who argues that the richer nations become, the more they slow down and level off in the rate of spending for social welfare programs. He presents an analysis of quartile averages of social security spending for sixty-four countries in which he shows that there is a slowdown in the rate of increase in social security spending; the average ratio of social security to GNP for the richest sixteen countries is only slightly higher than that of the second sixteen.

Pryor's (1968: 179-181) time series analysis of economic development and social welfare effort also shows a slowdown in the rate of social security spending at higher levels of development. Pauker (1968: 105-110) finds that the percentage of the Gross Domestic Product allotted to social security ranged from 2% for the poorest nations to 12% for the fifteen richest. However, countries with a Gross Domestic Product per capita in the

over $1500 range allot a smaller percentage of national income to social security than do countries in the $1000 to $1499 range.

While Jackman (1975:32) restricts his definition of the convergence theory to the assumption of a linear relationship as outlined in our first interpretation,he does present results which support what we have described as the curvilinear interpretation of the convergence theory. In an analysis based on a sixty nation sample, he finds that a curvilinear (semi-logarithmic) model fits the data better both for the relationship between level of economic development and social equality (Jackman, 1975:27-43) and for the relationship between what we are calling egalitarian political movements and social equality (Jackman,1975:125-131).

If our goal is to predict social welfare effort using a regression model in which level of economic development and strength of egalitarian political movements are the predictors, to be consistent with the curvilinear interpretation of convergence theory we would have to use a logarithmic specification of the economic development indicator. But a plausible case could be made for either a linear or a logarithmic specification for the political predictor. The linear specification would be the most obvious choice and would not need any special justification. The case for a curvilinear specification of a political predictor such as strength of egalitarian political movements would be similar to that used to justify a curvilinear specification of the economic development predictor. Just as we would at some point expect evidence of a diminishing marginal return for futher increases in economic development, so too we would expect a

diminishing marginal return for further increases in the strength of egalitarian political movements. In both instances there would be a ceiling effect; no nation can spend all its GNP on social welfare efforts. With reference to unions Jackman (1975:122) argues that they "realize their major achievements in the early stages of their development as organizations." In a similar vein Michaels (1959:392) points out that soon after a popular movement gains power it begins to lose contact with the masses and interest in redistributive efforts; this observation is central to his "iron law of oligarchy."

Statement of the Problem

In the present study we seek to assess the relative efficacy of the linear as contrasted to the curvilinear interpretation of the convergence theory when applied to the issue of whether egalitarian political movements (i.e. political movements committed to a more egalitarian distribution of society's material rewards) have an impact on a nation's social welfare effort. Based on the linear interpretation of the convergence theory one would be led to hypothesize that political factors such as egalitarian political movements (socialist parties and unions) will have little if any impact on a nation's social welfare effort. If there were any impact at all, we would anticipate its being minor in comparison to that of economic and industrial development. Based on the curvilinear interpretation of the convergence theory we would hypothesize that in the curvilinear (semi-logarithmic) specification of the models, political factors will have little if any impact on a nation's social welfare effort.

METHODS

Sample

Our analysis is based on a sample of thirty-nine countries. We have restricted the sample to those countries for which data are available for each of the variables used in the analysis. For several of these variables the data is available for a disproportionate number of the highly industrialized countries. Consequently, our sample is biased in thedirection of the more economically developed nations.[2]

Description of Variables

Each of the six variables used in the present analysis is described below. The first is the major dependent variable, the next four are independent variables, and the last is used as both a dependent and an independent variable.

Our measure of social welfare effort is social security expenditure as a percent of GNP of 1966 (International Labor Organization, 1973:317-323).[3] This variable is more appropriately considered a measure of social welfare effort than outcome; there is no assurance that an increase in social welfare expenditures necessarily increases real welfare.

We consider two measures of level of development. The first is level of economic development as measured by Gross National Product per capita, circa 1960 (U.S. Arms Control and Disarmament Agency, 1975:20-66). The second is level of technological development (or industrialization) as measured by energy consumption per capita in kilograms of coal equivalents, 1960 (Taylor and Hudson, 1972:291, 326-328).

We also consider two measures of strength of egalitarian political movements. The first is socialist party strength as measured by votes for socialist parties as a percentage of total vote, circa 1960 (Russett et al., 1964:93-94). The second is labor union strength as measured by the ratio of labor union membership to the non-agricultural labor force, circa 1960 (Gurr, 1966:91-110).

Our measure of the institutionalization of welfare bureaucracy is an index that measures the total number of years social security program experience a nation has had with each of five types of social security programs between 1934 and 1960 (Cutright, 1965).[4] The five major types of social security programs include: (1) work-injury; (2) sickness and/or maternity; (3) old age, invalidism, and death; (4) family allowance; and (5) unemployment-insurance. We are assuming that the longer these various social insurance programs have been in operation the more institutionalized they have become.

RESULTS

On the basis of the linear interpretation of the convergence theory as illustrated by Kerr et al. (1964) we would expect our indicators of strength of egalitarian political movements to be poor predictors of social welfare effort. The relevant data are presented in Table 1. The correlations for socialist party strength (.46) and labor union strength (.32) are moderately strong. Together these variables have a multiple correlation of .57 and account for 32% of the variance in social welfare effort. While the

indicators of level of development account for a bit more variance (35%), the difference is small.

Table 1 goes here

The argument is sometimes made that after indicators of economic and technological development are taken into consideration, there is little if any additional variance which can be accounted for by political factors. But we find that when all four predictors are included in the same equation, the amount of variance accounted for increases from 35% (for the level of development indicators alone) to 48%; this represents a substantial increase.

It is reasonable to conclude on the basis of the preceeding analysis that political factors, particularly those relating to the strength of egalitarian political movements, are almost as important as level of economic and technological development in predicting social welfare effort. This conclusion is not consistent with the linear interpretation of the convergence theory and it is not consistent with Kerr's "logic of industrialization" thesis.

So far we have considered only linear models. But evidence from previous studies suggests that the relationship between our predictors and various measures of social equality effort would be better represented using curvilinear models. In view of this it is reasonable to ask how our conclusions based on the linear models would be modified in light of results for curvilinear models. On the basis of the curvilinear interpretation of the convergence theory we would hypothesize a better fit

for the curvilinear models. The data relevant to this hypothesis are presented in Table 2. All of the independent variables have undergone logarithmic transformations.

Table 2 goes here

If the curvilinear interpretation of the convergence theory were superior to the linear interpretation, then we would expect a semi-logarithmic specification of the economic development indicators to yield models which account for more variance than do the corresponding linear models. Consistent with this expectation we find that the amount of variance accounted for by the level of development indicators increases from 35% (Table 1) to 53% (Table 2). Similarly, the amount of variance accounted for by all four predictors increases from 48% to 64%.

If the curvilinear interpretation were better than the linear, we would expect the superiority of the level of development predictors over the political predictors to be more evident when a curvilinear specification of our models is used. Consistent with this hypothesis we find that the gap in variance accounted for increases from only 3% (35%-32%) in Table 1 to 8% (53%-45%) in Table 2.

Based on our analysis to this point it would be reasonable to conclude that the curvilinear interpretation is superior to the linear interpretation; however, this purely relative comparison is of somewhat limited utility in assessing the efficacy of the curvilinear interpretation because our data failed to support the linear interpretation. For this reason we now turn to the original hypothesis derived from the curvilinear

interpretation of the convergence theory, that in the semi-logarithmic specification of the models political factors will have little if any impact on a nation's social welfare effort. As we have seen in Table 2 the difference between the amount of variance accounted for by the level of development indicators (53%) and that accounted for the the political indicators (45%) is more substantial than was the case in the linear specification of the models presented in Table 1, but it is still too small to lend support to the conclusion that political factors are not important as predictors of social welfare effort. The level of development indicators are definitely stronger predictors, but the strength of egalitarian political movements indicators remain at least moderately strong predictors even when we consider a curvilinear specification of our models.

The evidence presented so far supports the contention that political factors, such as the strength of socialist parties and the strength of labor unions, do affect a nation's social welfare effort. But we have not as yet explored the causal mechanism involved. The path analysis to which we now turn is addressed to this issue.

Causal Models

In previous efforts to model the causal process by which political and economic factors influence social equality efforts, a measure of what we refer to as institutionalization of welfare bureaucracy has proven to be an important intervening variable. Cutright (1965) has presented evidence

that economic and technological development are important determinants of what we are calling the institutionalization of welfare bureaucracy. Nations must have money to spend before welfare bureaucracies can be established. In another article he points out that the general population becomes a constituency supporting the bureaucracy and its demands for higher benefits and more extensive coverage (Cutright, 1967). Socialist party strength and labor union strength are causally prior to the institutionalization of welfare bureaucracy since historically these egalitarian political movements have exerted pressure on governments to expand welfare programs. Wilensky (1975:15-49) shows the importance of what we are calling institutionalization of welfare bureaucracy as an intervening variable mediating the effect of GNP (and a variety of other factors including political structure) on social security spending. Jackman (1975) makes extensive use of this measure as an intervening variable between level of development and various measures of social equality.

In view of the above we have constructed a pair of causal models (see Figure 1) in which institutionalization of welfare bureaucracy is tentatively included as an intervening variable mediating the effect of level of development and strength of egalitarian political movements on social welfare effort. Our assumptions as to causal ordering are implicit in these models.

Figure 1 goes here

We have constructed two separate models differing only in the choice of indicators for measuring level of development and strength of egalitarian

political movements. We have done this so we can demonstrate that the same basic conclusions follow independent of which of the indicators are selected. Had we attempted to include all the variables in the same model, this would have complicated efforts to specify a causal ordering among the variables and it would have introduced serious multicollinearity problems.

The basic issue to be resolved on the basis of the path analysis is whether or not the institutionalization of welfare bureaucracy can be viewed as an intervening variable through which level of development and strength of egalitarian political movements affect social welfare effort.

For both models the indirect effect of the political variable through the institutionalization variable is greater than is the direct effect of the political variable on social welfare effort. In Model 1A the direct effect is .10 and the indirect effect through the institutionalization variable is .23; in Model 1B the corresponding effects are .12 and .22. The results are similar for the level of development variables. Taken together our path analysis results strongly support the conclusion that egalitarianpolitical movements and level of development have substantial indirect effects on social welfare effort as a result of the impact they have on the development of a social welfare bureaucracy.

CONCLUSION

Our major objective has been to re-examine two of the most common interpretations of the convergence theory, with particular emphasis on assessing the importance of political factors in the shaping of the welfare

state toward which all industrial societies are alleged to be converging. In previous research the conclusion has generally been that political factors, particularly structure of government and ideology of governing elites, have very little impact on social equality effort. Our study is in part motivated by the belief that the door has been prematurely shut with respect to the potential relevance of political factors as predictors of a nation's social welfare effort.

In an analysis based on linear models we find that political factors such as socialist party strength and labor union strength have a substantial impact on social welfare effort. This finding leads us to reject what we refer to as the linear interpretation of the convergence theory.

The results from our analysis of the curvilinear interpretation of the theory are mixed. When the models are given a semi-logarithmic specification, the level of development predictors account for more variance than is the case in the corresponding linear models.[5] We also find that in these semi-logarithmic models the level of development predictors account for substantially more variance than do the political predictors. These findings are consistent with and lend support to the curvilinear interpretation of the convergence theory. But even in the curvilinear models the political predictors continue to account for a substantial amount of the variance in social welfare effort.

Where does this leave us? Our results suggest that the curvilinear interpretation of the convergence theory is useful for describing the functional form of the relationship between level of development and social welfare effort. It is also useful to the extent to which it points to level

of development as a major determinant of social welfare effort. But our results also suggest that it is not appropriate to use it as a single factor theory. More specifically, it is not appropriate to use the theory to exclude political variables in efforts to account for variation between nations in social welfare effort. The path analysis results suggest that a substantial portion of the effect that egalitarian political movements have on a nation's social welfare effort is a consequence of the effect such movements have on the development and institutionalization of a welfare bureaucracy.

FOOTNOTES

1. For the interpretation we have outlined, the mathematically ideal model is the hyperbola, and hyperbolic transformations would be appropriate in the subsequent analysis. However, we have decided to use the more familiar natural logarithmic transformation which provides an adequate approximation for our purposes.
2. The nations included in our sample are: Australia, Austria, Belgium, Bulgaria, Canada, Columbia, Costa Rica, Czechoslovakia, Denmark, Ecuador, El Salvador, Finland, France, Germany (F.R.), Greece, Honduras, Hungary, India, Ireland, Italy, Israel, Japan, Mexico, Netherlands, New Zealand, Norway, Panama, Paraguay, Poland, Sri Lanka, Sweden, Switzerland, Syria, Turkey, United Kingdom, U.S.S.R., U.S., Venezuela Yugoslavia.
3. This same variable has been referred to as social equality effort by Cutright (1967) and social security effort by Wilensky (1975). It includes compulsory social insurance, family allowances, public health services, public assistance (welfare), as well as other related programs such as benefits granted to war victims.
4. Cutright (1965) was the first to propose the variable referring to it as social insurance program experience (SIPE); it was subsequently used by Jackman (1975). Wilensky (1975) uses the natural logarithym of the variable referring to it as age of social security system.
5. A case can be made that the superiority of the semi-logarithmic model over the linear model can in part be accounted for in purely statistical terms (Fuguitt and Lieberson, 1974).

REFERENCES

Baum, Kamer

1974 "Beyond convergence: toward theoretical relevance in quantitative modernization research." Sociological Inquiry 44: 225-240.

Cutright, Phillips

1967 "Income redistribution: a cross-national analysis." Social Forces 46: 180-190.

1965 "Political structure, economic development, and national social security programs." American Journal of Sociology 70: 537-550.

Fuguitt, Glenn V., and Stanley Lieberson

1974 "Correlation of ratios or difference scores having common terms." Pp. 128-144 in Herbert L Costner (ed.) Sociological Methodology 1973-1974. San Francisco: Jossey-Bass.

Gurr, Ted R.

1966 New Error-Compensated Measures for Comparing Nations. Princeton, N.J.: Center of International Studies, Princeton University.

International Labor Organization

1972 The Cost of Social Security: Seventh International Inquiry, 1964-66. Geneva: I.L.O.

Jackman, Robert W.

1974 "Political democracy and social equality: a comparative analysis." American Sociological Review 39: 29-45.

1975 Politics and Social Equality: A Comparative analysis. New York: Wiley.

Kerr, Clark, John T. Dunlop, Frederic Harbison and Charles Meyers

1964 Industrialism and Industrial Man: The Problems of Labor and Management in Economic Growth. New York: Oxford University Press.

Lewis, H. Gregg

1963 Unionism and Relative Wages in the United States, an Empirical Inquiry. Chicago: The University of Chicago Press.

Maine, Henry Sumner

1964 Ancient Law. Boston: Beacon Press.

Meyer, John, John Boli-Bennett and Chris Chase-Dunn

1975 "Convergence and divergence in development." Pp. 223-246 in Alex Inkeles (ed.), Annual Reviews of Sociology, Volume 1. Palo Alto: Annual Reviews Inc.

Michaels, Robert

1959 Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy. New York: Dover Publications.

Mishra, Ramesh

1973 "Welfare and industrial man." Sociological Review 21: 535-560.

Paukert, Felix

1968 "Social security and income redistribution: comparative experience." Pp. 101-128 in Everett M. Kassalow (ed.), The Role of Social Security in Economic Development. Washington, D.C.: U.S. Social Security Administration.

Pryor, Frederic L.

1968 Public Expenditures in Communist and Capitalist Nations. Homewood, Illinois: Irwin.

Russett, Bruce M., Hayward Alker, Jr., Karl Deutsch, and Harold Lasswell

1964 World Handbook of Political and Social Indicators. New Haven: Yale University Press.

Taylor, Charles L., and Michael C. Hudson

1972 World Handbook of Political and Social Indicators. Second Edition. New Haven: Yale University Press.

Tocqueville, Alexis de

1952 Democracy in America. New York: Oxford University Press.

Toennies, Ferdinand

1963 Community and Society. New York: Harper and Row.

U.S. Arms Control and Disarmament Agency

1975 World Military Expenditures and Arms Trade, 1963-1966. Washington, D.C.: U.S. Government Printing Office.

Weinberg, Ian

1969 "The problem of convergence of industrial societies: a critical look at the state of a theory." Comparative Studies in Societies and History 11: 1-15.

Wilensky, Harold L.

1975 The Welfare State and Equality: Structural and Ideological Roots of Public Expenditures. Berkeley: University of California Press.

Table 1. Linear Models:[a] Social Welfare Effort as Predicted by Level of Development and Strength of Egalitarian Political Movements (N=39).

	Social Welfare Effort		
Predictor[a]	Pearson Correlation	Multiple Correlation	Explained Variance R^2 x 100
Level of Development			
Technological Development	.54**		
Economic Development	.54**		
Both Development Predictors		.59**	.35%
Strength of Egalitarian Political Movements			
Socialist Party Strength	.46**		
Labor Union Strength	.32*		
Both Political Predictors		.57**	.32%
All Four Predictors		.69**	48%

[a]This table presents results for three separate multiple regression models. The first model includes only the two level of development predictors. The second includes only the two strength of egalitarian political movements predictors. The third includes all four of these predictors.

**Significant at the .01

*Significant at the .05 level

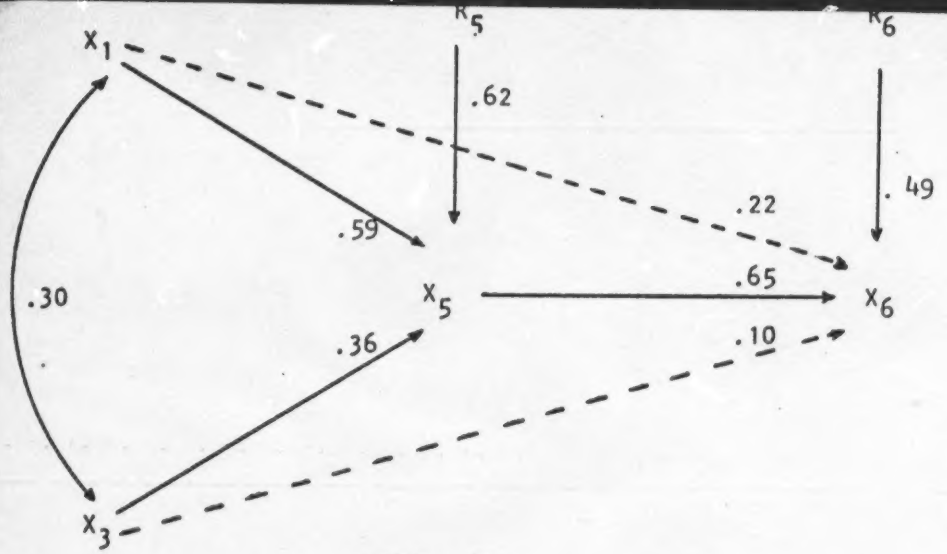
Table 2. Semi-Logarithmic Models:[a,b] Social Welfare Effort as Predicted by Level of Development and Strength of Egalitarian Political Movements (N=39).

	Social Welfare Effort		
Predictor	Pearson Correlation r	Multiple Correlation R	Explained Variance $R^2 \times 100$
Level of Development			
ln Technological Development	70**		
ln Economic Develpment	68**		
Both Development Predictors		.73**	53%
Strength of Egalitarian Political Movements			
ln Socialist Party Strength	52**		
ln Labor Union Strength	52**		
Both Political Predictors		.67**	45%
All Four Predictors		.80**	64%

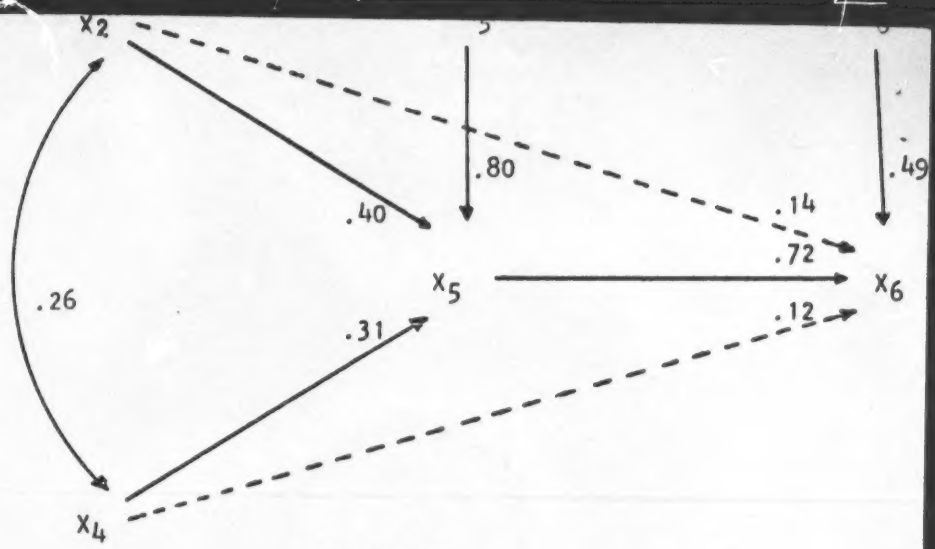
[a]This table presents results for three separate multiple regression models. The first model includes only the two level of development predictors. The second includes only the two strength of egalitarian political movements predictors. The third includes all four of these predictors.

[b]For all models in this table the independent variables have undergone a natural logarithmic transformation.

**Significant at the .01 level



MODEL 1A



MODEL 1B

X_1 ln Level of Technological Development

X_2 ln Level of Economic Development

X_3 ln Socialist Party Strength

X_4 ln Labor Union Strength

X_5 Institutionalization of Welfare Bureaucracy

X_6 Social Welfare Effort

Figure 1. Path Model Showing Institutionalization of Welfare Bureaucracy as an Intervening Variable.[a]

[a]Solid line indicates path coefficient is significant at the .05 level; dotted line indicates path coefficient is not significant.